

Having thus described the invention, it is now claimed:

1. An apparatus for reducing flow through an associated waterway, the apparatus comprising:

a housing having an elongated passage dimensioned for receipt in the associated waterway such that a longitudinal axis of the passage is substantially aligned with a direction of waterway flow, the housing including at least one outer surface having a series of peaks and valleys facing over the passage; and

a deflector located upstream of the passage and angled to direct water in the waterway around the passage.

2. The apparatus of claim 1 wherein the housing includes a second outer surface having a series of peaks and valleys facing over the passage.

3. The apparatus of claim 2 wherein the first and second outer surfaces are perpendicular to a common apex located above the passage.

4. The apparatus of claim 3 wherein the first and second outer surfaces extend generally parallel to the longitudinal axis of the passage.

5. The apparatus of claim 1 wherein the deflector is spaced from an inlet to the passage.

6. The apparatus of claim 1 wherein the deflector and the housing are joined together.

7. The apparatus of claim 1 wherein the passage has a generally trapezoidal cross-section that is wider at a base and narrower at an upper opening.

8. The apparatus of claim 1 wherein the housing includes first and second sidewalls disposed in an acute angle relative to one another and terminating in spaced relation to define an upper opening that extends along the housing.

9. The apparatus of claim 7 wherein the first and second sidewalls are joined together.

10. The apparatus of claim 9 wherein the housing is joined to the deflector.

11. The apparatus of claim 1 wherein the passage has a substantially uniform cross-section over its length.

12. An apparatus for improving migration of fish through an associated waterway, the apparatus comprising:

    a housing having a passage extending therethrough from an inlet end to an outlet end; and

    means mounted on the housing for disturbing laminar flow in the associated waterway above the passage.

13. The apparatus of claim 12 wherein the disturbing means includes first and second generally waved surfaces located on the housing and oriented generally perpendicular to a common apex located above the passage.

14. The apparatus of claim 13 wherein the generally waved surfaces extend along a length of the passage.

15. The apparatus of claim 12 further comprising a deflector disposed in spaced relation upstream of the inlet end of the passage whereby, in conjunction with the disturbing means, reduces flow rate through the passage irrespective of the flow rate external to the housing.

16. The apparatus of claim 15 wherein the housing includes first and second sidewalls disposed in angled relation and the passage is formed therebetween, the disturbing means located on the first and second sidewalls.

17. The apparatus of claim 16 wherein the sidewalls are integrally joined.

18. The apparatus of claim 17 wherein the deflector is integrally joined to the housing.

19. The apparatus of claim 12 wherein the housing is a concrete structure.

20. The apparatus of claim 12 further comprising means for securing the housing to an associated surface of the waterway.